City of Tukwila
Fire Department

Steven M. Mullet, Mayor
Nicholas J. Olivas, Fire Chief

May 28, 2009

To: Nora Gierloff, Deputy Director

From: B/C Tomaso

RE: TUCP

Here are the concerns the fire department has in regard to the current version of the Tukwila Urban Center Plan as presented to the Planning Commission. This list is an overview of some of the more obvious problems that I have determined would impact fire department responses and operations at emergency scenes. In discussing this plan with you and staff it became apparent that DCD staff was not fully aware of the impacts from the transition from the Uniform Code Series to the International Code series in regard to fire access issues or with regard to Building Code implications.

Riverfront district: Access difficulties for mid-rise buildings fronting river. The esplanade can be designed for fire apparatus use; designers will need to take into account the building height during the design.

Station Neighborhood: 115 k and 95 k high voltage power lines will impede aerial access to buildings within station neighborhood; close proximity of residential units to UP and BNSF rail lines will expose residents to increased exposure to rail-related emergencies. The concern in the Station Neighborhood is the proposed increase in building height. The Tukwila Town homes project will be less than 50' in height. Designers will need to account for safety distances from the high voltage power lines for aerial apparatus.

Work Place District: Street widths will be a consideration for fire apparatus access. Street width should be a minimum of 26 feet curb-face to curb-face, not to include street parking. Streets of this design typically become impassable from commercial vehicles illegally parked. This design will increase the need for police traffic enforcement and increase emergency response times within these areas.

TUC Boulevard: Wider sidewalks and street trees reduce aerial access vertically. TMC 16.16.010 & 2006 International Fire Code Appendices D require two access points for buildings greater than 30' in height. The proposed 20' alleyways will not provide sufficient

EXHIBIT 6 5/28/09
TUC plan
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access to these buildings; in addition, if a project were designed for mid-block, they would be unable to meet this requirement.

Transit systems: People movers: will they have traffic control system access for signal control? Sound Transit has designed integrated signal control in conjunction with the Link Light Rail system, similar to the Lake Union Street Car system. Seattle Fire has already encountered emergency response delays attributed to these transit improvements. Fire shall have preemption capabilities over any transit or people mover system.

Fire Stations: Permitted vs. Conditional use, increased cost to City for future fire station development. Conditional use permit process will increase overall station construction cost for staff and/or design team labor costs; permit fee is usually insignificant compared to staff costs during design.

Pg. 22, figure 18.28.013.2, Streetscape design will impede aerial access to buildings. Street shall be minimum 26 feet in width curb face to curb face not to include street parking. Proximity to building must be within 15 feet for at least one aerial access route. Existing street design is non-compliant with current fire code requirements. If this design is adopted, we will knowingly encourage code non-compliance. Rear access would utilize the 20' alley design; mid-block development would not be possible without dedicating aerial access fire lanes. This would not be consistent with proposed design methods.

Pg. 26, figure 18.28.032, Special height limits impact aerial access concerns. Proximity to building must be within 15 feet for at least one aerial access route. TMC 16.48 outlines high-rise requirements and TMC 16.16.010 & 2006 International Fire Code Appendices D address required aerial access. Mid-block projects will not be able to meet minimum fire code requirements. Rear access would utilize the 20' alley design. Mid-block development would not be possible without dedicating aerial access fire lanes. This would not be consistent with proposed design methods.

Pg. 27, figure 18.28.033, Maximum Tower Bulk, aerial access concerns. Proximity to building must be within 15 feet for at least one aerial access route. TMC 16.48 outlines high-rise requirements and TMC 16.16.010 & 2006 International Fire Code Appendices D address required aerial access requirements. Mid-block projects will not be able to meet minimum fire code requirements. Rear access would utilize the 20' alley design. Mid-block development would not be possible without dedicating aerial access fire lanes. This would not be consistent with proposed design methods.

Pg. 28, figure 18.28.042. Public frontage, aerial access concerns. Proximity to building must be within 15 feet for at least one aerial access route. TMC 16.48 outlines high-rise requirements and TMC 16.16.010 & 2006 International Fire Code Appendices D address required aerial access requirements. Mid-block projects will not be able to meet minimum fire code requirements. Rear access would utilize the 20' alley design. Mid-block development would not be possible without dedicating aerial access fire lanes. This would not be consistent with proposed design methods.

Pg. 36, figure 18.28.044, Setbacks, fire-rated construction to reduce fire spread possibilities, ground and aerial ladder access concerns. Reduced set backs will conflict with building and fire code required separation requirements. See International Building Code Chapter's 5, 6 and 7 and International Fire Code Chapter 7, Section 701.1.

In addition, page 3 of book 1, the reference to the Mall's inward development that will be reversed - this will be in direct conflict with the 60-foot yard requirements of the Building Code.

Pg. 39, figure 18.28.050, Street regulations: 11-foot travel lanes prohibit setting up aerial apparatus. Alleys minimum width should be 26 feet. TMC 16.48 outlines high-rise requirements and TMC 16.16.010 & 2006 International Fire Code Appendices D address required aerial access requirements. Mid-block projects will not be able to meet minimum fire code requirements. Rear access would utilize the 20' alley design. Mid-block development would not be possible without dedicating aerial access fire lanes. This would not be consistent with proposed design methods.

Streets of this design normally become impassable from vehicles illegally parked. This design will increase the need for police traffic enforcement and increase emergency response times within these areas.

Pg. 63. Cornices, Canopies, Facades and offsets should be integral to building construction (not fastened to the building). Fire is working with the Building Official to modify or have an official code interpretation for clear enforcement.

Pg. 68 (f) (hii), Canopies will impede ground ladder access. Fire is working with the Building Official to modify or have an official code interpretation for clear enforcement.

In various sections of this plan it regulates authority to the "Director", but no definition is provided as to who the "Director" is: DCD, PW, Finance. The TMC is very clear on who the Code Official is for both the building and fire codes; fire will always retain authority over all fire code regulated issues.

Book II, Page 14, (4), in reviewing the ICC valuation table on-line, is DCD planning on doing any regional adjustments? The ICC table is based on national averages for construction costs.

Book II, Page 15, Fig. 18.28.03, Conformance with Development Code. The percentage thresholds for compliance appear to be extremely low. The difference between assessed value and market value on some structures are vast. Fire would like to see language that exempts work for upgrading for Life Safety, Public Health or ADA upgrades.

Book II, Page 26, Building Height. 2) Regulation. This section references "floors"; neither the adopted Fire nor Building Codes provide a definition for "floors". However, if it is changed to the State adopted "stories" definition, it will provide continuity among the adopted codes.

Book II, Page 26, (3) General Requirements. (iv) This provision to allow up to 20-foot features to screen roof top equipment will require additional design to allow roof top access by

firefighters. In previous projects designers have struggled with providing solutions to this problem.

Book II, Page 38, Maximum Building Length, I did not see a reference to maximum building length allowed. Is one to assume that we could have a building a full block long? Would this be the proposed blocks or the existing super blocks?

In attempting to provide language that would stay timeless and not become obsolete with code cycle changes, Fire suggests the following: "Developers shall contact the Building and Fire Departments to obtain the most current City requirements prior to developing drawings or renditions for their development." This would be short and simple and put the burden on the developer to contact the City.

One item that appears to have been omitted in the development of this plan is the changes that have occurred during the change from the Uniform to International Code Series. One of the more significant changes in the fire code is fire department access. Chapter 5, Section 503, Appendix D further defines fire department access requirements, in addition to TMC 16.16.070. Having the alley and street design 26' in width may be one solution for ensuring fire access

The fire code section that impacts access requirements is Appendix D, Section D105, Aerial Fire Apparatus Access Roads.

D105.1 Where required. Buildings or portions of buildings or facilities exceeding 30 feet (9144mm) in height above the lowest level of fire department vehicle access shall be provided with approved fire apparatus access roads capable of accommodating fire department aerial apparatus. Overhead utility and power lines shall not be located within the aerial fire apparatus access roadway.

D105.2 Width. Fire apparatus access roads shall have a minimum unobstructed width of 26 feet (4572mm) in the immediate vicinity of any building or portion of building more than 30 feet (9144mm) in height.

D105.3 Proximity to building. At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet (4572 mm) and a maximum of 30 feet (9144 mm) from the building and shall be positioned parallel to one entire side of the building.

The above section was not considered during the development process of the TUCP.

I will be available to meet with you or other DCD staff to discuss these issues further.